Application No. 10/623,178 Amendment dated October 4, 2006 Reply to Final Office Action of August 4, 2006

**REMARKS** 

Reconsideration of the application is respectfully requested.

I. Status of the Claims

Claims 1 and 14 are amended without the introduction of new matter.

Claim 19 is added without the introduction of new matter.

Claims 1-19 are pending.

II. <u>Telephonic Interview</u>

Applicants and Applicants' representative thank Examiner Leslie R. Deak for the

telephonic interview on September 15, 2006. During the interview the outstanding rejections

were briefly discussed. With respect to independent claims, the Examiner suggested the use of

"configured to" language in the claims to explain that the light emission device and single light

reception device work as a pair without other components to produce the desired result. Based

on the telephonic interview, independent claims 1 and 14 are amended, and new independent

claim 19 is added, by the present response.

III. Rejections Under 35 U.S.C. § 102/103

Claims 1-4, 14, 16 and 17 were rejected under 35 U.S.C. §102(b) as anticipated by

Maynard (U.S. Patent No. 5,385,539). Further, claim 5 was rejected under 35 U.S.C. §103(a) as

unpatentable over Maynard in view of Hahn et al. (U.S. Patent No. 5,838,429, herein "Hahn").

Claims 6-11 were rejected under 35 U.S.C. §103(a) as unpatentable over Maynard in view of

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Burbank et al. (U.S. Patent No. 6,582,385, herein "Burbank"). Claims 12 and 13 were rejected

under 35 U.S.C. §103(a) as unpatentable over Maynard in view of Mould (U.S. Patent No.

4,082,461, herein "Mould"). Claim 15 was rejected under 35 U.S.C. §103(a) as unpatentable

over Maynard in view of Heinemann et al. (U.S. Patent No. 5,291,884, herein "Heinemann").

Claim 18 was rejected as unpatentable over Maynard in view of Hunley et al. (U.S. Patent No.

6,554,788, herein "Hunley"). Applicants respectfully traverse the above rejections.

Independent claim 1 is directed to a hematocrit sensor that includes a sensor, and

amended to clarify subject matter recited. Specifically, amended claim 1 recites that the sensor

includes, among other features, "a light emission device and a single light reception device

provided with said housing such that both said light emission device and said single light

reception device are in optical connection with each other and face said blood circuit through

either said slit or said plurality of pores, respectively" (emphasis added). Support for such

recitation is found in, for example, the Specification at page 18, line 8 through page 19, line 12,

and Figs. 5 and 6.

The Examiner asserts that Maynard discloses that each light reception device "comprises

a 'single' light reception device." However, as argued in the previous Response, Maynard

describes a hematocrit measurement sensor that requires two light detecting devices both to be in

optical connection with a light emitting device.

More specifically, Maynard describes at column 3, lines 39-51 as follows.

The presently preferred embodiment is a hematocrit measurement

sensor comprising a light emitting device for emitting light into a blood sample and two light detecting devices for detecting the light emitted into

the blood sample. The light emitting and light detecting devices are arranged in a predetermined geometric pattern such that *light traveling* 

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from the light emitting device must travel further to reach one light detecting device than to reach the other light detecting device, thereby forming a light path from the light emitting device to one light detecting device which is longer than the light path from the light emitting device to the other light detecting device. (emphases added)

Maynard further describes at column 7, lines 49-52, referring to Fig. 5, that "[t]he light detecting means are illustrated in FIG. 4 [sic] as a short path diode 32 and a long path diode 34. Again, the path to diode 34 is longer than the path to diode 32." Thus, the invention in Maynard does not function with a single light reception device, and does not function when one light emission device and only a single light reception device are paired to be in optical connection with each other. Under MPEP 2121.01, the disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter. However, Maynard does not disclose or suggest that the hematocrit sensor can function with a single light reception device.

Further, although the Examiner argues that the claim is open-ended and does not exclude unrecited elements, the invention recited in the claim must function as intended when such unrecited elements are added to the claim. Thus, if another light reception device is to be added, it must be added "such that both said light emission device and said single light reception device are in optical connection with each other." However, Maynard teaches that a light emission device and two light reception devices must be in optical connection.

Therefore, Maynard fails to disclose or suggest that "a light emission device and a single light reception device provided with said housing such that both said light emission device and said single light reception device are in optical connection with each other and face said blood circuit through either said slit or said plurality of pores, respectively," as recited in amended claim 1.

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Accordingly, amended independent claim 1 and claims dependent therefrom are

patentably distinguishable over Maynard.

With respect to the cited references under 35 U.S.C. §103(a), none of the cited references

teach or suggest the above-discussed features recited in amended claim 1.

With respect to Heinemann, the Examiner states that the device in Heinemann "may

comprise a single light source and detector (see column 2, lines 20-23, 37-40)." See, the

outstanding Office Action, page 6, lines 1 and 2. In this regard, Heinemann describes at column

4, lines 34-36 that "the apertures 21 and 23 are suitably optically isolated from each other as by

an optical wall 25." In contrast, in the present invention recited in amended claim 1, the light

emission device and the single light reception device are provided in one housing without any

optical wall between the light emission and reception devices. As a result, the present invention

recited in amended claim 1 allows the housing to be reduced in size. Thus, amended claim 1 and

claims dependent therefrom are patentably distinguishable over Heinemann.

Therefore, even if the teachings of the cited references including Maynard are combined,

the combined teachings do not render obvious the present invention recited in amended claim 1

and claims dependent therefrom.

Amended independent claim 14 includes features substantially similar to amended claim

1 to the extent discussed above. Therefore, amended claim 14 and claims dependent therefrom

are also patentably distinguishable at least for the above reasons advanced for amended claim 1.

Accordingly, Applicants respectfully request the withdrawal of the rejections of claims 1-

18 based on the cited references.

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New claim 19 includes the features that "a single light emission device and a single light

reception device both provided with the housing and configured to be in optical connection with

each other and face the blood circuit through either the slit or the plurality of pores,

respectively." Claim 19 is patentably distinguishable over the cited references, either taken

individually or in combination, at least for reasons substantially similar to those advanced for

amended claim 1.

**CONCLUSION** 

In view of the above amendments, Applicants believe the pending application is in

condition for allowance. Accordingly, the Examiner is respectfully requested to pass this

application to issue.

The Examiner is respectfully requested to contact the undersigned at the telephone

number indicated below once he has reviewed the proposed amendment if the Examiner believes

any issue can be resolved through either a Supplemental Response or an Examiner's

Amendment.

Dated: October 4, 2006

Respectfully submitted,

Hiroyuki Yasuda

Registration No.: 55,751

DARBY & DARBY P.C.

P.O. Box 5257

New York, New York 10150-5257

(212) 527-7700

(212) 527-7701 (Fax)

Attorneys/Agents For Applicant

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